NEVADA DROUGHT SUMMIT

Recommendations from Presenters

DEFINING AND PREDICTING DROUGHT

Dr. Justin Huntington, Desert Research Institute

Needs:

- Careful assessments of drought for decision making and declarations
    - Mountain weather networks
    - Agricultural weather networks
    - Implement new research tools like cloud computing and place based remote sensing
- The use of multiple drought maps in making decisions (not one map fits all)

Questions:

1. When does the BLM/FS need to make a decision each year to permit or deny grazing?

2. Can ranchers act quickly to put cattle on the range?

3. Can ranchers act quickly to remove cattle from the range when conditions turn dry?

4. Can the BLM/FS consider hydrologic and rangeland drought at the same time where the rangeland is green than normal, but riparian zones and woodlands are dryer than normal?

    a. Should hydrologic drought trump rangeland drought?

5. Are there drought indicators or other things that we should look at?

6. How can we (the science community) improve drought products from the perspective of managers, ranchers, and farmers?

WATER HISTORY, LAW AND PAST/CURRENT USERS

Jason King, P.E., State Engineer

- The Use It or Lose It provision in our water law needs to be re-examined for drought periods and over-appropriated basins.

- Need a more robust legal framework to support Critical Management Areas and Groundwater Management Plans.

- We need additional storage. When there are wet years, we need to capture the excess water where possible.

- There needs to be a statute change that at a minimum, establishes that in times of curtailment, only the outdoor use is cutoff for domestic well users.

- In some river systems, there is a need to better understand the surface water – groundwater connectivity.

Ed James, P.E., Carson Water Subconservancy District

Drought Mitigation

Short-Term:

- Promote Smart Use of Water Resources
- Collect Water Use Data
- Update Pumping Inventory Data

Long-Term:

- Define & Allocate Wet Water
- Up–t o-date Data needed for Analysis
- Groundwater Pumping
- Water Level Data

Colby Pellegrino, SNWA

Colorado River "silver bullets":

- Amending the 1922 Colorado River Compact
- Withholding deliveries to Mexico
- Disregarding other river uses (tribal uses, environmental uses, etc.)
- Curtailing senior water right holders
- Desalination

Opportunities to manage drought and future demands on the Colorado River:

- Flexible solutions
- Compromise

DROUGHT IN NEVADA - RESORTS AND RECREATION

Jeremy Adkins, Angel Park Golf Club

Recommendations:

- Allow input from golf courses before restrictions are imposed
- Introduce a "Best Management Practices" handbook for irrigation
- Offer educational opportunities to educate water users

DROUGHT IN NEVADA - INDUSTRY AND DEVELOPMENT

Kurtis Hyde, Par3

- Developers and landscapers having open discussion in planning phases about what is sustainable and what isn't. It's not just all about sales and immediate impact.
- More aggressive education on beautiful sustainable landscapes and proper conversions.
- Don't stop enforcement (because it works).
- Tiered billing system needs tweaking for large properties.

- Education of landscape companies, developers and owners (look like the Springs Preserve not Spanish Trail)

DROUGHT IN NEVADA - AGRICULTURE

David Peri, Peri and Sons Farms

- Must recognize economic base of rural communities is Agriculture
- Sustain Economic Base
- Private/Public Cooperation
- More Flexibility to Use Water that is Available
- Fair Curtailment
- Producers Need to Cooperate with Each Other
- Producers Need to Cooperate with the State
- Prohibit Water Transfers

Sam Routson, Winnemucca Farms

In The Interim for Agriculture:

- Require "Best Practices" in physical transport and use of water
- Encourage conservation by doing away with "water forfeiture" for justifiable non-use of permitted water
- Don't allow "supplemental" pumping if surface water is available
- Storage – increase Nevada's capacity. Adopt Aquifer Storage and Recovery Systems (ASR's) for efficiency. [Note SB 1894 (California Emergency Drought Relief Act of 2015—Introduced) and H.R. 2898 (Western Water and American Food Security Act of 2015—passed in the House). Senator Feinstein's SB 1894 calls for, among other actions, new and expanded water storage projects, emergency pumping and accessing the "delta", and desalination project(s).]

- Change state management of the "resource". Adopt a "market based" system that is:
    - Transparent and open
    - Deals with "feast and famine" circumstances
    - Operational and functioning today outside the U.S.
    - "Test project" in Diamond Valley assisted by Prof. Mike Young

James Moyle, Diamond Valley Alfalfa

1. The Plan needs to come with a checkbook or access to one. Available resources need to be identified for funding permanent retirements of conservatory easements of water rights and acreage, both now and in the future.

2. The plan must include proper management of hydrology because all basins are not created equal.

3. The plan must ascertain and manage the total amount of acre feet of seasonal discharge and its use must be administered by law.

4. Current w3ater law must be changed to address: priority system; "use it or lose it"; PBU's; transfers within basin; and possible transfers or sale to adjoining basins.

5. The original point of diversion within the ¼ of the ¼ must be expanded to include anywhere within the 160 acres in order to lessen the effects of the cone of depression and eliminate the need and expense to re-file the PBU.

6. The 4 acre feet allotment must be reduced accompanied by stringent monitoring and appropriate penalties for misuse.

7. The groundwater management plan allows 10 years for implementation and benchmarks must be established to assure that it is working as proposed.

DROUGHT IN NEVADA - CONSERVATION AND THE ENVIRONMENT

Teddy Ryerson, The Nature Conservancy

What's Next:

- Develop resiliency funding tools
- Explore opportunities for green infrastructure

Barriers:

- Data
- Demand Exceeds Supply
- Infrastructure
- State and Federal Laws

Recommendations:

- Information
- Collaboration
- Vision
- Leadership

Kacey KC, Nevada Sagebrush Ecosystem Program

Recommendations:

- True Collaboration
- Use science, traditional knowledge, and experience
- Manage adaptively
- Allow for succession
- Incentive landowners to continue good stewardship

Mark Biddlecomb, Ducks Unlimited

- Beneficial re-use can help
- Efficiencies can be improved, to a point (take money)
- Wells can help – short-term in most cases

DROUGHT IN NEVADA - THE FEDERAL ANGENCY PERSPECTIVE

Bill Dunkelberger, US Forest Service

Barriers:

1. Some resources can only be protected by managing for overall resiliency. It is unrealistic to take certain actions to mitigate drought concerns (e.g., providing water from off site to maintain vegetation health across the forest).

2. Size of our management area – At roughly 6.3 million acres, we are spread thin even during favorable conditions.

3. Budget – Increased costs of fire suppression and uncertainty in annual budgets leads to difficulties in implementing some projects.

Future Actions:

1. Continue to work with private, state and federal partners to manage for resilient ecosystems.
2. Continue fuel treatments and fire suppression to minimize impacts to habitat from large and severe fires.
3. Continue to work with livestock permittees to responsibly manage livestock use to promote rangeland sustainability.
4. Work with partners to identify funding and opportunities for projects that will promote hydrologic function and retention of water to sustain important vegetative communities.

WATER CONSERVATION - COMMUNICATING THE MESSAGE OUGHT IN NEVADA

Mike Alger, Meteorologist

- Keep the Message Focused

- Make sure it is a topic universally agreed upon
    - "We are in a drought…How do we manage?"
- Avoid politicizing
- Stress response by private and public sectors.
    - "We are all in this together."
- Whatever you do, do not try to tie it in to the Global Warming (Climate Change) issue. As soon as you do that, you will lose a very large percentage of your audience.

- Make sure both the challenges and the “victories” are presented.
- We’re (mostly) in much better shape than our neighbors to the west.
- Private, business and utility proactivity has been effective.